

Abstract

A process for producing an article having modified optical, chemical, and/or physical properties is disclosed. The process comprises (a) fluidizing a starting
5 material; (b) forcing the fluidized starting material toward the article, the article having a certain temperature; and (c) passing the fluidized starting material through a high energy zone, the passing step can occur before the forcing step; after the forcing step but before the fluidizing material comes in contact with the surface of the article; and/or after the forcing step and after the fluidized material comes in contact with the
10 surface of the article. The properties of the article are modified because the article has nano-scaled structures distributed on the surface of the article and/or at least partially embedded in the article.